Conserving the Lifeblood of Puget Sound

We Cannot Restore the Sound Without an Accurate Stream Inventory

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The challenges facing Puget Sound reach beyond its deep inlets and sinuous shorelines, all the way to the crests of the Cascades and Olympics and into the rivers and streams that are the Sound's lifeblood. The streams that flow into Puget Sound form an integral part of its physical, biological, and chemical integrity. When those streams are inadequately protected, the consequences affect Puget Sound as surely as water flows downhill.

State and local government agencies in Washington are charged with protecting Puget Sound's streams from negative impacts caused by adjacent land-use activities. In many cases that charge hasn't been met for a surprisingly simple reason: agencies have been relying on inaccurate maps.

In Washington, the responsible agencies depend on a process called water typing to identify as well as categorize streams, lakes, and wetlands based on their importance, both ecologically and for human uses. Water typing answers the question: "Where are the streams, and where are the fish habitats within them?" This basic inventory is the most fundamental step in conserving the health of Puget Sound and its tributaries.

Unfortunately, current water typing records and maps often underestimate the actual miles of fish-bearing waters by 50% or more. Wild Fish Conservancy has documented widespread error throughout Puget Sound in designating streams as fish-bearing or non fish-bearing. We have found that a significant number of streams in Puget Sound do not even appear on any maps. Hundreds of miles of productive Puget Sound watersheds are threatened because, when they are misidentified or unidentified on regulatory maps, they are often subjected to inappropriate land-use practices. Many streams are not receiving protection they warrant under already existing regulations.

Unless the watersheds draining into Puget Sound are accurately identified and protected, cumulative effects from the development of these watersheds will continue to contribute to the compromised health of Puget Sound. And until systematic inventories are performed, regulatory maps updated, and streams adequately protected, progress towards a healthy Puget Sound will continue to be significantly offset by the pervasive and in many cases unrecorded loss of freshwater habitat and water quality.

HOW WATER TYPING WORKS, AND DOESN'T

In 1975 the Washington Department of Natural Resources (WDNR) developed the process of water typing to regulate forest practices that impact Washington's surface waters, classifying streams into types depending on their physical, biological, and human-use characteristics. Stream reaches that can support fish are classified as Type F, and non fish-bearing streams are classified as Type N. Accurate water

Snyder Cover Creek. Photo Credit: Wild Fish Conservancy

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typing is essential to protecting fish and their habitats because the type and proximity of human activities allowable in areas adjacent to streams and other surface waters is dictated by water type. For example, streamside buffer zones required on Type F streams are larger than those required on Type N streams. In some cases, Type N streams receive no protection at all.

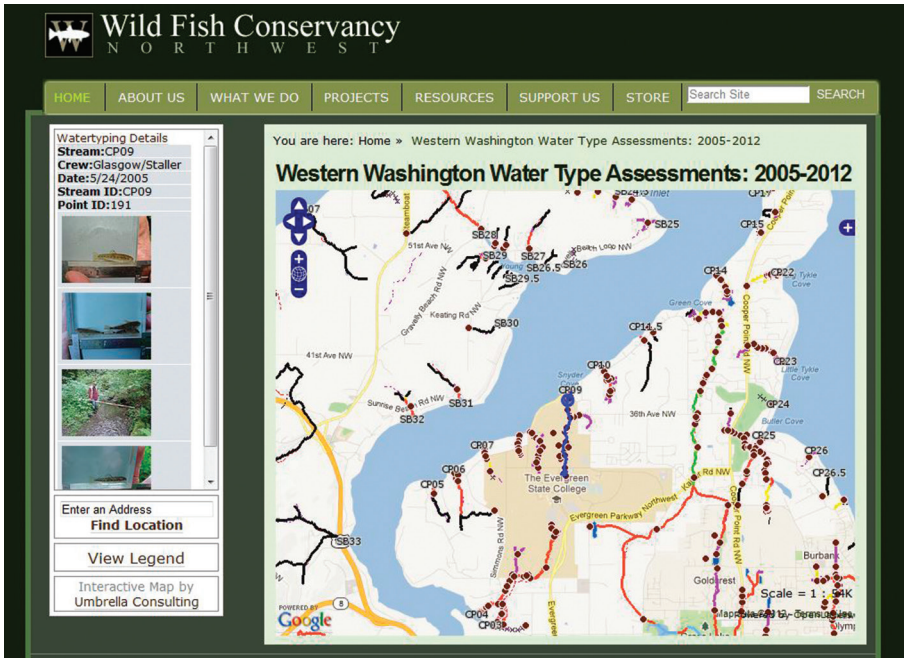
Since 1994, Wild Fish Conservancy has been physically surveying streams throughout Washington to correct their misclassification and qualify them for the protection warranted under existing laws. Funded by U.S. Fish and Wildlife Service in 1994, Wild Fish Conservancy assessed water type in a randomized subsample of watersheds between the Canadian Border and the Columbia River. Since then, using the state-sanctioned watertype survey protocol we have corrected the watertype classification of over 7000 stream reaches statewide.

A CRISIS IN REGULATING DEVELOPMENT

Though originally designed for defining stream buffer requirements for forest practices, the WDNR water typing regulatory maps have been widely adopted by city and county government agencies for regulating development activities outside the forest-practice zones. Recent Wild Fish Conservancy watertyping surveys in rural and suburban landscapes in King, Snohomish, Jefferson, Thurston, Mason, San Juan, Kitsap, and Island counties documented significant errors in the regulatory maps. Many stream reaches identified on the regulatory maps as Type N were found to support fish, and many streams did not even appear on the maps.

CASE IN POINT: Snyder Cove Creek

A small watershed located on Cooper Point in west Olympia, Snyder Cove Creek flows directly into Eld Inlet in South Puget Sound. Prior to a Wild Fish Conservancy survey, the regulatory water type maps identified 0.2 miles of stream channel where Wild Fish Conservancy documented 1.4 miles – a 600% increase in stream length. The regulatory map had identified only 14% of the actual stream network. Unfortunately, the inaccurate stream channel mapping and the underestimated extent of fish habitat exhibited in Snyder Cove Creek regulatory map is not anomalous. Without watertype assessments to correct the inaccurate regulatory maps, watersheds like Snyder Cove Creek are not likely to be afforded adequate protection—protection they warrant under existing regulations.



Wild Fish Conservancey online mapping tool